

## **REMARKS**

### **I. Introduction**

Applicant gratefully acknowledges the courtesy that Examiner Price extended to his undersigned attorney during a telephone interview on April 21, 2010 that concerned potential revision to claim 1 that would clarify the claimed subject matter. In view of Applicant's accompanying Request for Continued Examination, the interview, and the present submission, Applicant respectfully requests reconsideration of the present application.

### **II. Status of the Claims and Summary of Amendments**

Claim 1 is amended to clarify a proviso, prescribing that B'-Z'- in formula Ia is not an acrylate group if B comprises an acrylate group. Also, B'-Z'- is not a methacrylate group if B comprises a methacrylate group. Support for the amendment can be found in original claim 1 and in the specification at page 5, lines 2-4.

Claims 15-36 were cancelled previously. No other claims are cancelled or amended. Therefore, claims 1-14 and 37-44 are pending.

### **III. Response to the Office Action**

Applicant gratefully acknowledges the PTO's withdrawal of the previous rejection under the second paragraph of 35 U.S.C. § 112. At issue are two maintained grounds for rejection that Applicant addresses in the order presented.

#### **A. The Claims Are Novel Over Wolter**

The PTO maintained its rejection of claims 1-5, 7, 8, 10, and 12 under 35 U.S.C. § 102(b) for alleged anticipation by U.S. Patent No. 6,124,491 to Wolter. Office Action, page 2. The PTO asserted in the Office Action and during the interview that a compound of Wolter's Example 1 conforms to claimed formula Ia chiefly because the compound in relevant part satisfies the recited definitions for Z' and B. Office Action, page 4. Applicant traverses the rejection insofar as it might pertain to the claims as amended.

The compound of cited example 1 contains two methacrylate moieties on the “left” side of the compound as depicted in the reference. Wolter, col. 41, lines 1-6. The Examiner and the undersigned attorney agreed during the interview that the allyl and carboxyl portions of each methacrylate moiety correspond to, and hence are allocated between, the substituents B, B', and Z' of claimed formula I.

The proviso of claim 1 excludes the cited compound, however. This is because the compound would correspond to claimed formula I when Z' is -COO (carboxyl), B' is allyl, *i.e.*, B'-Z'- together represent methacrylate, and B is methacrylate. Yet, the proviso prevents B and the grouping B'-Z'- to simultaneously represent methacrylate groups. In other words, the compound in Example 1 of Wolter is not a compound of claimed formula Ia.

Accordingly, Wolter does not anticipate claims 1-5, 7, 8, 10, and 12. Applicants respectfully request reconsideration and withdrawal of the rejection, therefore.

#### **B. The Claims Are Patentable Over Wolter**

The PTO also maintained its rejection of claims 1, 2, 6, 7, 9, 11, 13, 14, and 40-44 under 35 U.S.C. § 103(a). Office Action, page 3. The PTO alleged, in the main, that a skilled artisan who sought to make any silane compound taught by Wolter would be led to a compound of claimed formula Ia. *Id.* Wolter fails to support the stated rejection as it might pertain to the claims as amended, and so Applicant respectfully traverses the rejection.

Claimed formula Ia provides, in relevant part, compounds in which B and B' can be different, such that an asymmetrical compound results. For instance, the discussion above relating to the section 102(b) rejection emphasizes in context that formula Ia, at its point of ‘closest contact’ to the compounds of Wolter, requires B and B' to be different. In other words, to the extent that the silane compounds of Wolter relate to claimed formula Ia, present substituents B and B' are different moieties.

In contrast, the compounds of Wolter are necessarily symmetrical because the synthetic methodology taught by Wolter employs use of symmetrical starting materials. More specifically, synthesis schemes spanning columns 22-28 of the reference depict without

variation the reactions between a symmetric 1,3-dimethacrylate derivative of glycerine with a suitable silane co-reactant, such as a silane anhydride. Wolter, col. 22, lines 20-30. Specific examples of syntheses include Wolter's Example 1, which details the reaction between the reactants glycerine-1,3-dimethacrylate and a silane anhydride. Wolter, col. 40, line 55 to col. 41, line 13. Symmetric dimethacrylates also are the starting material in Examples 9 (col. 44, lines 19-27; cols. 45-46, lines 1-40).

The Examples above reflect Wolter's more general provisions for symmetrical molecules. Specifically, general formula I of the reference provides for diacrylate or dimethacrylate moieties in substituent "B" (col. 2, lines 51-63), many examples of which are depicted throughout columns 3-20 of the reference. Thus, where two acrylate or methacrylate moieties appear in Wolter's substituent B, they are the same, *e.g.*, a symmetric diacrylate or dimethacrylate. Thus, consistent with the synthetic methodology summarized above, Wolter does not teach or suggest mixed, *e.g.*, asymmetric, diacrylates.

The preceding discussion of the section 102(b) rejection and the interview highlighted a correspondence between the (meth)acrylate moieties taught by Wolter – moiety "B" of the reference – and substituents B and the grouping B'-Z'-, respectively, as presently defined in claimed formula Ia. Yet, in contrast to the provisions of Wolter, the claims prevent B and B'-Z'- from simultaneously representing (meth)acrylate groups. Hence, it would be manifestly clear to the skilled artisan desiring "to use any silane within the scope of the silane [compounds] taught by Wolter" that such a compound has symmetric (meth)acrylate groups. The Wolter compounds therefore fall outside the scope of claimed formula Ia. Because Wolter does not teach or suggest silane compounds having asymmetric diacrylate moieties, the reference would not have suggested to the skilled artisan a compound of formula Ia.

Wolter also fails to support the rejection for the additional reason that the examples of reference do not suggest the structural variability allowed by presently recited moieties B, B' and Z'. More specifically, Z' in compounds of claimed formula Ia allows for broadly variable distances between B and B' and between B' and the silyl residue. *See* specification at pages 14-20. The schemes on pages 18 and 19 of the specification illustrate a number of possibilities of how the different groups B and Z'-B' can be situated within the molecule.

Further, the specification at pages 20 and first lines of page 21 elaborate upon these structural features and the advantages of obtaining different kinds of reactive groups in B and B'.

In contrast, the synthetic methodologies taught by Wolter, as detailed above, generally employ symmetric di(meth)acrylate starting materials that fix distances between (meth)acrylate moieties and between those moieties and the silyl residue. Hence, the claimed compounds offer structural variability and advantages that are not fairly suggested by Wolter.

For at least these reasons, the claims are patentable over Wolter. Accordingly, Applicant respectfully urges the PTO to reconsider and withdraw the rejection.

### CONCLUSION

Applicant has advanced credible reasons for the withdrawal of all outstanding rejections, and so the application should be in condition for allowance. Should Examiner Price believe that any lingering issue warrants further discussion, he is courteously invited to contact Applicant's undersigned attorney by telephone at the number below.

Respectfully submitted,

Date May 24, 2010

By Steven M. Reid

FOLEY & LARDNER LLP  
Customer Number: 22428  
Telephone: (202) 295-4767  
Facsimile: (202) 672-5399

Steven M. Reid, Ph.D.  
Attorney for Applicant  
Registration No. 54,393

The Commissioner is hereby authorized to charge any additional fees, which may be required under 37 C.F.R. §§ 1.16-1.17, and to credit any overpayment to Deposit Account No. 19-0741. Should no proper payment accompany this response, then the Commissioner is authorized to charge the unpaid amount to the same deposit account. If any extension is needed for timely acceptance of submitted papers, then Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of the relevant fee(s) from the deposit account.